

INITIAL REVIEW ENGINEERING REPORT
LVE: 13-0727

Focus Ready Draft 10/31/2013

ENGINEER: [REDACTED]

PV (kg/yr): [REDACTED]

SUBMITTER: [REDACTED]

USE: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

OTHER USES: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

MSDS: Yes

Label: No

Gen Eqpt: [REDACTED]
[REDACTED]

Respirator: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Health Effects: [REDACTED]
[REDACTED]
[REDACTED]

TLV/PEL:

[REDACTED]

LVE PPE: [REDACTED]

CRSS (10/21/2013):

Chemical Name: [REDACTED] [REDACTED]

S-H20: [REDACTED]

VP: [REDACTED]

MW: [REDACTED] [REDACTED] [REDACTED]

Physical State and Misc CRSS Info:

Neat: [REDACTED] Mfg: [REDACTED] Proc/Form: Solution, [REDACTED]

[REDACTED] End

Use: [REDACTED]

[REDACTED]. Submitted data: [REDACTED]

[REDACTED] EPI estimated data (input
MP = 99 °C): BP = 209 °C; VP = 0.04 torr; WS = 382 g/L; log P = -0.90.
ACD Labs estimated data (STN pprop): BP = 231 °C; VP = 9.65E-2 torr;
WS = 170 g/L; log P = -1.040.

Consumer Use: No

SAT (concerns) (10/22/2013):

Related Cases and Misc SAT Info:

[REDACTED] [REDACTED]

Migration to groundwater: [REDACTED]

PBT rating: P2B1T2

Health: 2 Dermal, Drinking Water, Inhalation

Eco: 1 No releases to water

OCCUPATIONAL EXPOSURE RATING: [REDACTED]

NOTES & KEY ASSUMPTIONS:

Generated by the 09/30/2013 version of ChemSTEER. LVE is import only at a binding PV of [REDACTED]. After import, LVE is formulated into

[REDACTED]. E [REDACTED]
[REDACTED]
[REDACTED] see contact report. //// LVE is imported as a [REDACTED], therefore, [REDACTED]. In addition, the LVE is [REDACTED]; therefore, [REDACTED] assessed. //// No same submitter past cases are found. Similar use (battery electrolyte) past cases from different submitter referenced for consistency are [REDACTED]. For [REDACTED] and [REDACTED] the [REDACTED] occurs at [REDACTED]

[REDACTED] These two past cases indicated the [REDACTED], and all other [REDACTED]. Further, these past cases stated the [REDACTED] which would not result in worker exposure. For [REDACTED], the past case assessed release to [REDACTED] at [REDACTED], and dermal exposure to [REDACTED] (consistent with this IRR).

POLLUTION PREVENTION CONSIDERATIONS:

No Pollution Prevention information provided by the submitter.

EXPOSURE-BASED REVIEW: No

INITIAL REVIEW ENGINEERING REPORT

LVE: 13-0727

Number of Sites/ Location:

Days/yr:

Basis: Per submission, , avg. batch size of

Process Description: LVE --> inspection --> storage --> blending, blended with
(submission)

ENVIRONMENTAL RELEASES ESTIMATE SUMMARY

IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium.

Conservative: [REDACTED] from [REDACTED] site
or [REDACTED] from [REDACTED] or [REDACTED]
to: [REDACTED] (Dust Model)
from: Unloading Solid Raw Material from Transport Containers
basis: [REDACTED]
[REDACTED] LVE is imported as a [REDACTED].

Output 2: [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
to: [REDACTED]
from: Equipment Cleaning Losses of Liquids from a Single, [REDACTED] Vessel
basis: [REDACTED]

Typical: [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
Worst Case: [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
to: [REDACTED]
from: Loading [REDACTED] Product into Drums
basis: [REDACTED]

Output 2: [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
to: [REDACTED] (submission/tech. contact) - CEB assumes [REDACTED] or [REDACTED]
from: Equipment Cleaning Losses of [REDACTED] from a Single, [REDACTED] Vessel
basis: User-Defined Loss Rate Model. For each batch, submission estimates [REDACTED] of LVE from [REDACTED] is collected, and [REDACTED] Per technical contact, [REDACTED]
[REDACTED] Based on the [REDACTED]
[REDACTED].

Output 2: [REDACTED] from [REDACTED]
or [REDACTED] from [REDACTED] or [REDACTED]
to: [REDACTED] - assumed [REDACTED] (tech. contact)
from: Cleaning [REDACTED] from Containers Used to Transport the Raw Material

basis: EPA/OPPT [REDACTED] in Transport Containers Model, [REDACTED]
[REDACTED] Per technical contact, [REDACTED]
[REDACTED] [REDACTED] [REDACTED] .

RELEASE TOTAL
[REDACTED] - all sites

OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY
Tot. # of workers exposed via assessed routes: [REDACTED]
Basis:

Inhalation:

Exposure to [REDACTED] (volatile) [REDACTED]

Typical:

- > Potential Dose Rate: [REDACTED] over [REDACTED]
- > Lifetime Average Daily Dose: [REDACTED] over [REDACTED]
- > Average Daily Dose: [REDACTED] over [REDACTED]
- > Acute Potential Dose: [REDACTED] over [REDACTED]

Worst Case:

- > Potential Dose Rate: [REDACTED] over [REDACTED]
- > Lifetime Average Daily Dose: [REDACTED] over [REDACTED]
- > Average Daily Dose: [REDACTED] over [REDACTED]
- > Acute Potential Dose: [REDACTED] over [REDACTED]

Number of workers (all sites) with inhalation exposure: [REDACTED]

Basis: Unloading Solid Raw Material from Transport Containers; [REDACTED]
[REDACTED], less than [REDACTED] of [REDACTED] containing the PMN
handled per site-day.

NOTE: The respirator class is: [REDACTED] (including [REDACTED] or [REDACTED]
[REDACTED]).

INHALATION MONITORING DATA REVIEW

- 1) Uncertainty (estimate based on model, regulatory limit,
or data not specific to industry): Yes
 - 2)a) Exposure level > 1 mg/day? [REDACTED]
OR
b) Hazard Rating for health of 2 or greater? 2 Yes
- => Inhalation Monitoring Data Desired? **No**

Exposure to [REDACTED] (volatile) [REDACTED] [REDACTED]

Typical:

- > Potential Dose Rate: [REDACTED] over [REDACTED]
- > Lifetime Average Daily Dose: [REDACTED] over [REDACTED]
- > Average Daily Dose: [REDACTED] over [REDACTED]
- > Acute Potential Dose: [REDACTED] over [REDACTED]

Worst Case:

- > Potential Dose Rate: [REDACTED] over [REDACTED]
- > Lifetime Average Daily Dose: [REDACTED] over [REDACTED]
- > Average Daily Dose: [REDACTED] over [REDACTED]
- > Acute Potential Dose: [REDACTED] over [REDACTED]

Number of workers (all sites) with inhalation exposure: [REDACTED]

Basis: Loading [REDACTED] Product into Drums; EPA/OPPT Mass Balance Model.

NOTE: The respirator class is: [REDACTED] (all substances in the [REDACTED]
form).

INHALATION MONITORING DATA REVIEW

- 1) Uncertainty (estimate based on model, regulatory limit,
or data not specific to industry): Yes
- 2)a) Exposure level > 1 mg/day? [REDACTED]

OR

b) Hazard Rating for health of 2 or greater? 2 Yes
=> Inhalation Monitoring Data Desired? No

Dermal:

Exposure to [REDACTED] at [REDACTED] concentration

High End:

- > Potential Dose Rate: [REDACTED] over [REDACTED]
- > Lifetime Average Daily Dose: [REDACTED] over [REDACTED]
- > Average Daily Dose: [REDACTED] over [REDACTED]
- > Acute Potential Dose: [REDACTED] over [REDACTED]

Number of workers (all sites) with dermal exposure: [REDACTED]

Basis: Unloading [REDACTED] Raw Material from Transport Containers; EPA/OPPT
Direct 2-Hand Dermal Contact with [REDACTED]

Exposure to [REDACTED] at [REDACTED] concentration

High End:

- > Potential Dose Rate: [REDACTED] over [REDACTED]
- > Lifetime Average Daily Dose: [REDACTED] over [REDACTED]
- > Average Daily Dose: [REDACTED] over [REDACTED]
- > Acute Potential Dose: [REDACTED] over [REDACTED]

Number of workers (all sites) with dermal exposure: [REDACTED]

Basis: Loading [REDACTED] into Drums; EPA/OPPT 2-Hand Dermal Contact
with [REDACTED]

INITIAL REVIEW ENGINEERING REPORT

LVE: 13-0727

Use:

Number of Sites/ Location:

unknown site(s)

Days/yr:

Basis: Per submission, CEB assumes
operation at the and calculates a LVE
use rate of

Process Description: containing LVE
--> customer site --> filled into -->
(submission)

ENVIRONMENTAL RELEASES ESTIMATE SUMMARY

IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium. Unknown release assessed to uncertain media.

[REDACTED]
High End: [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
to: [REDACTED]
from: Cleaning [REDACTED] Residuals from Drums Used to Transport the Raw
Material
basis: EPA/OPPT Drum Residual Model, CEB standard 3% residual.

[REDACTED]
Conservative: [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
to: [REDACTED]
from: Equipment Cleaning Losses of [REDACTED] from a Single, [REDACTED] Vessel
basis: EPA/OPPT Single Vessel Residual Model, CEB standard 1% residual.

[REDACTED]
Typical: [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
Worst Case: [REDACTED] [REDACTED] [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
to:
from: Unloading [REDACTED] Raw Material from Drums
basis: [REDACTED].

[REDACTED]
Output 2: [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
to: [REDACTED]
from: Cleaning [REDACTED] Residuals from Drums Used to Transport the Raw
Material
basis: [REDACTED].

[REDACTED]
Output 2: [REDACTED] from [REDACTED]
or [REDACTED] or [REDACTED]
to: [REDACTED]
from: Equipment Cleaning Losses of Liquids from a Single, [REDACTED] Vessel
basis: [REDACTED]

RELEASE TOTAL
[REDACTED] - all sites

OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY

Tot. # of workers exposed via assessed routes: ■

Basis:

Inhalation:

Exposure to [REDACTED] (volatile) [REDACTED] [REDACTED]

Typical:

- > Potential Dose Rate: [REDACTED]
- > Lifetime Average Daily Dose: [REDACTED] [REDACTED]/yr
- > Average Daily Dose: [REDACTED] [REDACTED]
- > Acute Potential Dose: [REDACTED]

Worst Case:

- > Potential Dose Rate: [REDACTED]
- > Lifetime Average Daily Dose: [REDACTED] [REDACTED]
- > Average Daily Dose: [REDACTED] [REDACTED]
- > Acute Potential Dose: [REDACTED]

Number of workers (all sites) with inhalation exposure: [REDACTED]

Basis: Unloading Liquid Raw Material from Drums; [REDACTED]
[REDACTED]

NOTE: The respirator class is: [REDACTED]
[REDACTED]

INHALATION MONITORING DATA REVIEW

- 1) Uncertainty (estimate based on model, regulatory limit, or data not specific to industry): Yes
 - 2)a) Exposure level > 1 mg/day? [REDACTED]
OR
 - b) Hazard Rating for health of 2 or greater? 2 Yes
- => Inhalation Monitoring Data Desired? **No**

Dermal:

Exposure to [REDACTED] at [REDACTED] concentration

High End:

- > Potential Dose Rate: [REDACTED]
- > Lifetime Average Daily Dose: [REDACTED]
- > Average Daily Dose: [REDACTED] [REDACTED]
- > Acute Potential Dose: [REDACTED]

Number of workers (all sites) with dermal exposure: [REDACTED]

Basis: Unloading Liquid Raw Material from Drums; EPA/OPPT 2-Hand Dermal Contact with [REDACTED] Model.

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[illegible]